

DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Proposed Endangered Status for *Cordylanthus Palmatus* (Palmate-Bracted Bird's-Beak)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to list a plant, *Cordylanthus palmatus* (palmate-bracted bird's beak), as an endangered species. This action is being taken because population numbers have declined in historic times, and the range of the palmate-bracted bird's beak has been reduced as a result of conversion of land to agricultural use, intensive livestock grazing, urban development, and other land use activities that have altered the natural plant communities that once supported the species. Historically, the species is known from scattered locations in Fresno and Madera Counties in the San Joaquin Valley, north into the Sacramento Valley from San Joaquin to Colusa Counties, and in the Livermore Valley, Alameda County. *Cordylanthus palmatus* presently is known from only three small populations. Habitat modification from urban and agricultural development and uncontrolled off-road vehicle (ORV) use of one area pose the most serious and immediate threats facing the species. Low population numbers may also threaten this annual plant through genetic depletion and reduced reproductive potential. Federal listing would provide the protection of the Endangered Species Act of 1973, as amended, for the three remaining populations of this species. The Service seeks comments and data related to this proposal.

DATES: Comments from all interested parties must be received by September 16, 1985. Public hearing requests must be received by August 30, 1985.

ADDRESS: Comments and material concerning this proposal should be sent to the Regional Director, U.S. Fish and Wildlife Service, Lloyd 500 Building, 500 NE, Multnomah Street, Suite 1692, Portland, Oregon 97232. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Mr. Wayne S. White, Chief, Division of Endangered Species, U.S. Fish and Wildlife Service, Lloyd 500 Building, 500 NE, Multnomah Street, Suite 1692,

Portland, Oregon 97232 (503/231-6131 or FTS 429-6131).

SUPPLEMENTARY INFORMATION:

Background

Cordylanthus palmatus, an annual herb of the snapdragon family (Scrophulariaceae), was originally collected by Ferris in 1916 and described by her in 1918 under the name *Adenostegia palmata*. Macbride (1919) recognized the species under the genus *Cordylanthus* (a conserved name).

Plants of *C. palmatus* are from 4 to 12 inches tall with several to many ascending-spreading branches from the base of the stem or above. The stems are sparsely to densely hairy with some of the shorter hairs glandular. The leaves and stems are grayish green. The small pale whitish flowers, 1/2-inch to 1-inch long, are arranged in dense spikes. Each flower is surrounded by a small lobed floral bract.

Little is known of the ecology of *Cordylanthus palmatus* aside from its occurrence in and possible confinement to a particular soil type named saline-alkali (black alkaline) of lowland flats and plains. This habitat was historically rare in much of cis-montane California and is now much reduced in extent. Like other members of the genus and related genera in the family, *C. palmatus* is hemiparasitic on the roots of various seed plants (Chuang and Heckard 1971).

Historically the species was collected from seven scattered locations in Fresno, Madera, San Joaquin, Yolo, and Colusa Counties, California. A recent collection (1982) extended the known range into the Livermore Valley in Alameda County, California. The range of this species coincides with a region of California that has been intensively developed for agriculture, livestock grazing, and urbanization. These activities are the principal factors responsible for the destruction of much of California's pristine valley habitats (Heady 1977), and they undoubtedly contributed to the decline of *Cordylanthus palmatus*. The extirpation of five previously known populations of this plant in Colusa, San Joaquin, Yolo, Madera, and Fresno Counties has been attributed largely to soil reclamation and conversion of lands for agricultural use (Heckard 1977). Prior to destruction of one population, five and one-half air miles east-southeast of Mendota in Fresno County, seed was collected by Dr. L.R. Heckard (University of California, Berkeley). Ten cultivated seedlings from greenhouse stock established from the Mendota site were transplanted to the Mendota State Wildlife Management Area. The new

site is less than one mile from the now extirpated donor site. At present, three populations are known, two are on private and city-owned lands near the cities of Livermore, Alameda County, and Woodland, Yolo County; and the third, the transplanted colony, exists within the Mendota State Wildlife Management Area near Mendota, Fresno County.

In the late 1970's and early 1980's searches of likely habitats within the range of the species by local botanists, personnel from the California Department of Fish and Game, and the U.S. Fish and Wildlife Service failed to locate any additional colonies of this species. The rarity of the saline-alkaline soils occupied by this species and the intensive agricultural and urban development within its range make the likelihood of finding additional colonies remote.

The Secretary of the Smithsonian Institution, as directed by section 12 of the Endangered Species Act of 1973, prepared a report on those native U.S. plants considered to be endangered, threatened, or extinct in the United States. This report (House Document No. 94-51), which included the palmate-bracted bird's-beak, was presented to Congress on January 9, 1975. On July 1, 1975, the Service published a notice in the **Federal Register** (40 FR 27823) accepting the report as a petition within the context of section 4(c)(2) of the Act (petition acceptance provisions are now contained in section 4(b)(3)(A)), and giving notice of its intention to review the status of the plant taxa named therein, including the palmate-bracted bird's-beak. As a result of this review, on June 16, 1976, the Service published a proposed rule in the **Federal Register** (41 FR 24523) to determine approximately 1,700 vascular plant species, including the palmate-bracted bird's-beak, to be endangered species pursuant to Section 4 of the Act. In 1978, amendments to the Endangered Species Act required that all proposals over 2 years old be withdrawn. A 1-year grace period was given to proposals already over 2 years old. On December 10, 1979, the Service published a notice (44 FR 70796) of the withdrawal of that portion of the June 16, 1976, proposal that had not been made final, along with four other proposals that had expired.

The Service published an updated notice of review for plants on December 15, 1980 (45 FR 82480). This notice included *Cordylanthus palmatus* as a candidate plant. On February 15, 1983, the Service published a notice (48 FR 6752) of its prior finding that the listing of this species may be warranted in

accordance with section 4(b)(3)(A) of the Act as amended in 1982. On October 13, 1983, and again on October 12, 1984, further findings were made that the listing of *Cordylanthus palmatus* was warranted, but precluded by other pending listing actions, in accordance with section 4(b)(3)(B)(iii) of the Act; notification of the 1983 finding was published on January 20, 1984 (49 FR 2485). Such a finding requires the petition to be recycled, pursuant to section 4(b)(3)(C)(i) of the Act. The present proposal constitutes a finding that the listing is warranted. The Service proposes to implement the petitioned action, in accordance with section 4(b)(3)(B)(ii) of the Act.

Summary of Factors Affecting the Species

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations promulgated to implement the listing provisions of the Act (codified at 50 CFR Part 424; revised in 49 FR 38900, October 1, 1984) set forth the procedures for adding species to the Federal lists. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Cordylanthus palmatus* (Ferris) Macbride (palmate-bracted bird's-beak) are as follows:

A. The present or threatened destruction, modification, or curtailment of its habitat or range. Specimens of *Cordylanthus palmatus* have been collected from eight sites in six counties in California. Only two of these sites, and one site where a transplanted population is found, presently support the species. Habitat loss resulting from soil reclamation and urban and agricultural developments are responsible for the extirpation of populations at the six sites no longer supporting *Cordylanthus palmatus*. The remaining three populations have declined in the past and face present and potential threats of further habitat loss.

At the transplant site near Mendota, plants are so few in numbers that any disturbance to the habitat could threaten the population with extirpation. Population numbers have fluctuated probably due to the annual nature of the plant and destruction by off-road vehicles (ORV's). Of the ten transplanted specimens, five were destroyed in 1973 by ORV's even though the plants were protected by wire coverings. In 1981 only one plant was observed on the preserve, but in 1982 the population had grown to about 20 to 30 plants (Dr. L.R. Heckard, University

of California, Berkeley, telephone comm.). In 1983 between 20 and 30 plants were observed by Peggy Smith, a local botanist (John Stebbins, California State University, Fresno, telephone comm.). The manager of the wildlife area is aware of the population and is attempting to protect the site from encroachment by ORV's (Bob Huddleston, California Department of Fish and Game, telephone and written communication). It is likely that without active protection and management the population will decline and disappear. Active management such as seed dispersal in likely habitats and fencing will be necessary to prevent additional population declines.

The population near Woodland, California, originally occupied about 10 acres, but a large portion (approximately 8 acres) was plowed in 1982 (Rick York, California Native Plant Society, telephone communication) and has been plowed in subsequent years. Plowing eliminated the largest portion of the colony (probably 75 percent or more). The remaining population consists of about 100-200 plants along a nearby drainage ditch and open field. This site is being considered for use as a sewage treatment facility by the City of Woodland.

The Livermore Valley population consists of about 2,000 to 5,000 plants scattered over approximately 180-200 acres within an area zoned for residential and/or agricultural development. Several developments have been proposed for the entire area. In January of 1983 approximately 40 acres of the Livermore site (about 20 percent of the area) was bulldozed and a portion of associated wetlands illegally filled (U.S. Army Corps of Engineers, letter, 1983).

B. Overutilization for commercial, recreational, scientific, or educational purposes. Not applicable.

C. Disease or predation. Historically, cattle grazing affected many of the areas once supporting this species. In some areas the plant species composition was undoubtedly altered significantly by grazing animals. At present, however, grazing does not appear to be a threat in those areas still supporting *Cordylanthus palmatus*.

D. The inadequacy of existing regulatory mechanisms. Although the State of California lists the palmate-bracted bird's-beak as endangered, State law does not provide adequate protection for this species in its natural habitat. The law provides that a land owner who has been notified by the State Fish and Game Commission that a State listed plant is growing on his/her

property must notify the Department of Fish and Game "... at least 10 days in advance of changing the land use to allow salvage of such plant." Although State law also provides for such measures as research and land acquisition, provisions of the Endangered Species Act would offer additional protection for this species and its habitat.

E. Other natural or manmade factors affecting its continued existence. Population numbers, especially at the Mendota site, are low for an annual plant. Genetic depletion and reduced reproductive potential may further threaten the palmate-bracted bird's-beak.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in determining to propose this rule. Based on this evaluation, the preferred action is to list *Cordylanthus palmatus* as endangered. Endangered status appears most appropriate considering the past and present declines in the species' range and populations, and the current threats faced by the species. Only three populations are known to exist and all three have suffered recent damage. Plants on private and municipally owned lands are imminently threatened by proposed developments. The depauperate transplanted population on the Mendota State Wildlife Area will likely disappear without active management. The designation of critical habitat is discussed in the "Critical Habitat" section.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that, to the maximum extent prudent and determinable, the Secretary designate any habitat of a species that is considered to be critical habitat at the time the species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for this species at this time. As discussed under Factor A in the preceding section, *Cordylanthus palmatus* is threatened by taking in the form of destruction due to ORV activity and agricultural conversion. Taking is not regulated by the Act with respect to plants except for a prohibition against removal and reduction to possession of endangered plants on land under Federal jurisdiction. Because of a substantial possibility of vandalism, publication of critical habitat descriptions could make this species more vulnerable.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service following listing. The protection required of Federal agencies and the prohibitions against taking are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402, and are now under revision (see proposal at 48 FR 29990; June 29, 1983). Section 7(a)(4) requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into consultation with the Service. No Federal activities are known which may affect *Cordylanthus palmatus*; however, the Army Corps of Engineers has permit jurisdiction over some wetlands where the species occurs and developments proposed for these areas may require section 7 consultation to ensure protection for the species and its habitat.

The Act and its implementing regulations found at 50 CFR 17.61, 17.62, and 17.63 set forth a series of general trade prohibitions and exceptions that apply to all endangered plant species. With respect to *Cordylanthus palmatus* all trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.61, would apply. These prohibitions, in part, would make it illegal for any

person subject to the jurisdiction of the United States to import or export, transport in interstate or foreign commerce in the course of a commercial activity, or sell or offer for sale this species in interstate or foreign commerce. Certain exceptions can apply to agents of the Service and State conservation agencies. The Act and 50 CFR 17.62 and 17.63 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered species under certain circumstances. It is anticipated that few trade permits would ever be sought or issued since the species is not common in cultivation or in the wild.

Section 9(a)(2)(B) of the Act, as amended in 1982, prohibits the removal and reduction to possession of endangered plant species from areas under Federal jurisdiction. This prohibition would apply to the palmate-bracted bird's-beak. Permits for exceptions to this prohibition are available through section 10(a) of the Act, until revised regulations are promulgated to incorporate the 1982 Amendments. Proposed regulations implementing this prohibition were published on July 8, 1983 (48 FR 31417), and it is anticipated that these will be made final following public comment. Because this species is not known to occur on Federal land, it is anticipated that few collecting permits for the species will ever be requested. Requests for copies of the regulations on plants and inquiries regarding them may be addressed to the Federal Wildlife Permit Office, U.S. Fish and Wildlife Service, Washington, D.C. 20240 (703/235-1903).

Public Comments Solicited

The Service intends that any final rule adopted will be accurate and as effective as possible in the conservation of endangered or threatened species. Therefore, any comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning any aspect of these proposed rules are hereby solicited. Comments particularly are sought concerning the following:

- (1) Biological, commercial trade, or other relevant data concerning any threat (or the lack thereof) to *Cordylanthus palmatus*;
- (2) The location of any additional populations of *Cordylanthus palmatus*; and the reasons why any habitat should or should not be determined to be critical habitat as provided by section 4 of the Act;
- (3) Additional information concerning the range and distribution of this species;

- (4) Current or planned activities in the subject area and their possible impacts on *Cordylanthus palmatus*.

Final promulgation of the regulations on *Cordylanthus palmatus* will take into consideration the comments and any additional information received by the Service, and such communications may lead to final regulations that differ from this proposal.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be filed within 45 days of the date of the proposal. Such requests must be made in writing and addressed to the Regional Director, U.S. Fish and Wildlife Service, Lloyd 500 Building, 500 NE. Multnomah Street, Suite 1692, Portland, Oregon 97232.

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the *Federal Register* on October 25, 1983 (48 FR 49244).

References

- Chuang, T.I., and L.R. Heckard. 1971. Observations on root parasitism in *Cordylanthus* (Scrophulariaceae). *Amer. J. Bot.* 58:218-228.
- Ferris, R.S. 1918. Taxonomy and distribution of *Adenostegia*. *Bull. Torrey Bot. Club* 45:399-423.
- Heady, H.F. 1977. Valley grassland. In M.G. Barbour and J. Major (eds.), *Terrestrial Vegetation of California*, pp. 491-514. John Wiley and Sons, New York.
- Heckard, L.R. 1977. Rare Plant Status Report for *Cordylanthus palmatus*. California Native Plant Society, Berkeley, California. Unpubl. report. 4 pp.
- Macbride, J.F. 1919. Reclassified or new spermatophytes, chiefly North American. *Contrib. Gray Herb.* 59:28-39.

Author

The primary author of this proposed rule is Monty Knudsen, U.S. Fish and Wildlife Service, Sacramento Endangered Species Office, 2800 Cottage Way, Room E-1823, Sacramento, California 95825.

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Proposed Regulations Promulgation**PART 17—[AMENDED]**

Accordingly, it is hereby proposed to amend Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, as set forth below:

1. The authority citation for Part 17 continues to read as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-359, 90 Stat. 911; Pub. L. 95-632, 92 Stat.

3751; Pub. L. 98-159, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411 (16 U.S.C. 1531 *et seq.*).

2. It is proposed to amend § 17.12(h) by adding the following, in alphabetical order under the family Scrophulariaceae, to the List of Endangered and Threatened Plants:

§ 17.12 Endangered and threatened plants.

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(h) * * *

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Scrophulariaceae—Snapdragon family:						
<i>Cordylanthus palmatus</i>	Palmate-bracted bird's-beak...	U.S.A. (CA)	E		NA	NA

Dated: April 25, 1985.

Susan Recce,

Acting Assistant Secretary for Fish and Wildlife and Parks.

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